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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/842,835

Filing Date: April 26, 2001

Appellant(s): JANAKIRAMAN ET AL.

Rakesh Garg

For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 03/30/2007 appealing from the Office action mailed
06/21/2006.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings, which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6876981

Berckmans

4-2005

W3C et al. " Web Content Accessibility Guidelines 1.0" 5 May 1999.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-3, 6-10, 13-17, 20-22, 24-26,28-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Berckmans et al U.S. Patent 6,876,981 issued Apr. 5, 2005 and filed Oct. 26, 1999.

In regard to **Independent claim 1**, Berckmans teaches a method for presenting graphical data to a user, comprising the steps of:

- Analyzing a set of graphical data to determine a set of critical factors present in the graphical data; (Berckmans column 5, lines 25-30 and figure 3) Berckmans shows the analyzing of stock information by the user where the user determines which critical factors related to stocks such as price, bid/ask, horizon, etc are relative and which they want to see in the display
- Ranking the determined critical factors according to respective priorities set for each of the critical factors; (Berckmans Figure 3-9 and column 8, lines 50-67) Berckmans teaches the ability to set factors to determine certain outcomes where the settings comprise a ranking of stocks based on the settings to see if a particular investment strategy will transpire
- Generating a textual description of the set of graphical data, ordered according to the priority of the respective critical factor (Berckmans Figure 3) Berckmans shows the textual data generated in the display in which a textual description is placed on the data such as the company name or the call date as shown in figure 3. Also, the data in the display is descriptive in that the user gleans from the data information about the particular securities in the display.

With respect to **dependent claim 2**, Berckmans teaches the method as recited wherein the set of critical factors and the textual description are selected according to a selected mode (Berckmans column 5, lines 20-30) Berckmans teaches other types of securities can be presented with the corresponding information which would change the mode of the device. If the user is looking at stocks, it is in one mode and if the user is looking at bonds, it is in another.

With respect to **dependent claim 3**, Berckmans teaches the method as recited wherein the mode is selected according to a URL associated with the set of graphical data (column 5, lines 1-15).

With respect to **dependent claim 6**, Berckmans teaches the method wherein said priority of the respective critical factor is determined in accordance with said selected mode (Berckmans column 5, lines 20-30) Berckmans teaches other types of securities can be presented with the corresponding information which would change the mode of the device. If the user is looking at stocks, it is in one mode and if the user is looking at bonds, it is in another.

With respect to **dependent claim 7**, Berckmans teaches the method wherein said step of generating said textual description of the set of graphical data includes generating said textual description in accordance with one or more textual templates (Figures 3-9) Berckmans shows the textual formats related to the individual type of security.

In regard to **claims 8-10, 13-14, 24, 29 and 32** claims 8-10, 13-14, 24, 29 and 32 reflect the computer program product comprising computer readable instructions used for performing the method steps as claimed in 1-3, 6-7, 22, 28 and 31, respectively and are rejected along the same rationale.

In regard to **claims 15-17, 20-21, 25, 26, 30 and 33** claims 15-17, 20-21, 25, 26, 30 and 33 reflect the system comprising computer readable instructions used for performing the method steps as claimed in 1-3, 6-7, 22, 28 and 31, respectively and are rejected along the same rationale.

With respect to **dependent claim 22**, Berckmans teaches the method wherein the graphical data further comprises data in a format that produces a non-textual image on the display screen (Berckmans Figures 3 and 5A and column 6, lines 15-30)

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With respect to **dependent claim 28**, Berckmans teaches the method wherein the set of critical factors includes characteristics of data illustrated in a displayed multi-dimensional graph (Berckmans Figure 3 and column 6, lines 15-30).

With respect to **dependent claim 31**, Berckmans teaches the method wherein the textual description of the set of graphical data describes in words an illustrated description of the graphical data (Berckmans Figure 3 and column 6, lines 15-67).

Claims 4-5, 11-12, 18-19, 23 are rejected under 35 U.S.C 103(a) as being unpatentable over Berckmans et al U.S. Patent 6,876,981 issued Apr. 5, 2005 and filed Oct. 26, 1999 in view of W3C et al (hereinafter W3C) " Web Content Accessibility Guidelines 1.0" 5 May 1999.

With respect to **dependent claims 4, 11, 18, 23** as indicated in the above discussion Berckmans teaches every element of claims 1, 8 and 15.

Berckmans fails to expressly teach the *method wherein said step of generating said textual description further comprises the step of generating said textual rendition in an aural format and using image analysis software for converting the graphical data.*

However, W3C teaches a process of creating text-equivalents of non-text content that can be rendered in ways that can be presented to a text to speech synthesizer for the purposes of delivering information to users who cannot easily read or see the information in the display. Further W3C teaches a process of using analysis software to convert the graphical data (See guideline 12. W3C and Berckmans are analogous art as they both describe processes for displaying information to a wide variety of users and for coloring information for the user and for presenting information in web browsers.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Berckmans to incorporate the attributes of W3C to render graphical data in an aural format. The motivation to perform such modification comes from the

expressed motivation to provide information to a wide audience that would contain those with disabilities or those that prefer to have content rendered audibly (See W3C Abstract)

With respect to **dependent claims 5, 12, 19**, as indicated in the above discussion Berckmans teaches every element of claims 1, 8 and 15.

Berckmans fails to expressly teach the method wherein said step of generating said textual description further comprises the step of generating said textual rendition in an tactile format.

However, W3C teaches a process of creating tactile displays (Braille) of text content for the purposes of delivering information to users who cannot easily read or see the information in the display (See guideline 5). W3C and Berckmans are analogous art as they both describe processes for displaying information to a wide variety of users and for coloring information for the user and for presenting information in web browsers.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Berckmans to incorporate the attributes of W3C to render graphical data in a tactile format. The motivation to perform such modification comes from the expressed motivation to provide information to a wide audience that would contain those with disabilities or those that prefer to have content rendered in Braille (See W3C Abstract)

Claim 27 is rejected under 35 U.S.C 103(a) as being unpatentable over Berckmans et al U.S. Patent 6,876,981 issued Apr. 5, 2005 and filed Oct. 26, 1999.

With respect to **dependent claim 27**, as indicated in the above discussion Berckmans teaches every element of claim 8. Berckmans does not expressly teach the method wherein the graphical data is selected from a group of GIF, JPEG, and PNG data types. However, this limitation would have been obvious to one of ordinary skill in the art at the time of the invention, in view of Berckmans, because of the suggestion of using means to deliver in part or in entirety the

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computing modules that present the information in the browser using CGI scripts, which are known in the art to comprises well known processes of presenting GIF and JPEG information to a browser window.

(10) Response to Argument

Beginning on page 11 of Appellant's brief (hereinafter Brief), Appellant argues specific issues, which are accordingly addressed below. Applicant has elected to group the following claims together and the Examiner will present arguments based on the elected groupings.

Group 1 - claims 1,3, 6-8 10, 13-15, 17, 20-22, 24-26 and 28-33

Appellant argues that the prior art of Berckmans does not teach all of the elements in claim 1 and does not teach displaying graphical data

Appellant argues that the prior art of Berckmans does not teach all of the elements of claim 1 and does not teach presenting graphical data because the applicant interprets the Berckmans as presenting numerical data only (See Brief Page 12, middle and Page 14 Top).

The Examiner disagrees.

The present application specification provides for intrinsic evidence as to the intended meaning for "graphical data" in terms of the application scope. The Examiner relied on the definition as follows:

[0035] In step 304, a web page is received. A web page may be represented as a hypertext markup language (HTML) file. **Graphical information in the web page may be incorporated as a table of values**, such as Table 402, FIG. 4. Table 402, includes a number, n, of pairs of values, generically labeled as <X>, and <Y>. Although labeled as "X" and "Y", it would be understood that these labels are "meta labels", and may represent any pair of independent and dependent

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variables, respectively. For example, in the exemplary web page illustrated in FIG. 1B, the "Y" values are stock prices, and the "X" values represent time. Additionally, a <TITLE> 404 may be associated with the graphical data. Again, it would be understood by an artisan of ordinary skill that <TITLE> 404 denotes a "meta title" and that in a particular instance of a set of graphical data, the title associated therewith would be descriptive of the information presented. Additionally, a web page may include graphical data in the form of an image. Images may be specified in various files of different formats. For example, an image may be represented in a GIF, JPEG, or PNG file formation. Typically, such an image file may be associated with a line of the HTML source file via an "IMG" tag. Note that once the graphical information has been downloaded to the client, they may be cached in RAM, for example RAM 214, FIG. 2, or alternatively, in nonvolatile storage, such as disk storage device 220, FIG. 2. If, **the graphical information has been provided as an image, a table of values, as discussed in conjunction with FIG. 4, may be generated using image analysis software.** Such image analysis software which may be used to create such a table includes commercially available software, for example KBVision.TM. from Amerinex Applied Imaging, Inc., Amherst, Mass. Other image analysis software which may be used in conjunction with the present invention is Khoros Pro.TM. from Khoros Research, Inc., Albuquerque, NM.

Given the Appellant's definition, a Table containing values represents graphical information (data) when it is rendered within a web browser. Berckmans specifically shows financial data rendered in a web browser within a table (See column 5, lines 60-67 and column 6, lines 1-15). For Example, Berckmans shows a stock call/put options are shown with a Nov 99, Dec 99 and Feb 00 Strike prices in a tabular format where the independent variable is time in terms of the data of expiration of the contract. Berckmans also teaches that the information is rendered in a graphical web browser and can be rendered by the known server side solutions, such as common gateway interfaces (See column 5, lines 30-50). The Examiner acquiesces the notion that the data from the server is for the most part text. However, as Berckmans teaches the purpose of the invention is to render the data within a multi-dimensional display with colors and within Bar graphs so that the user can more easily perceive the process the important information to make an investment decision. The process of changing the actual real-time prices into different relative sizes, colors and bar graphs is a graphical

process and hence the financial data is not displayed as just text, it is displayed as graphical data.

Turning to the arguments regarding the elements of claim 1, Berckmans teaches a process by which a cell may have graphical attributes such as colors and bars. Displaying a color and a bar are clearly graphical constructs. Berckmans teaches the bars within the cell are related to the parameter within the cell, in that the length of the bar varies based on the value of the parameter within the cell. Berckmans teaches that the user picks a parameter attribute from the list as presented in figure 6A and B. Once the attribute is assigned then the tabular data is analyzed to display the graphical bar to provide the user with an indication of the rationale to purchase or sell the underlying asset (See column 7, lines 20-40). In the example presented, as shown in figure 3, the first bar represents the mid value and the second bar represents the impl/volatility of the given option and the given strike prices. Therefore, the system provides for a first analysis of the graphical data in the table to determine critical factors present in the data. The critical factor in this case is that for the 26 ½ call option the implied volatility is high and the mid value is at mid range. But for the 30 ¼ call the mid value is near 75% of the range and the implied volatility is near the high end of the range. In both situations, the color applied to the cell is a dark value indicating to the user to perform an action or not to perform an action. Either way the system analyzes the information and provides a result to the user.

A second mechanism for displaying graphical data is in the filter section of the interface, section 310, Figure 3. Berckmans shows a variety of sliders that show the data value attached to the end range of the slider. Graphical sliders are graphical components and the information within the slider is not text. Given the presentation of Berckmans the slides in section 310, the stock price slider presents a range value for the stock and presents a value, which is graphical data. The user along with the other values for time horizon, volatility, and rate sets the Stock price in this simulation to an arbitrary value. Berckmans teaches the values are well known in the art of options investment analysis (See column 7, lines 34-35). The underlying values are used to simulate what would happen to the assets listed in the table if the stock was to move to a value of 92 dollars with no time horizon and a 50 % implied volatility rating and value at which interest rates fluctuations may change in the future (50 % probability). In performing the simulations, the display will present new graphical bars and new color values for each of the call and put option in the display based on the simulated values. The simulated values would be represented as graphical data. The ranking of the factors is specified by the user in indicating which value is chosen from figures 6a and 6b to be used by the system in displaying the cell bars and colors and bar graphs. Berckmans expressly teaches the process of generating text in combination with the graphics (See column 6, lines 19-21 and 42-50).

Moreover, based on the applicant's own definition, if a web page had an image that represented a stock chart then the image would have to be analyzed

by image analysis software to extract the underlying data values to create a table. Therefore, the prior art of Berckmans is seen as anticipating claim 1 because Berckmans presents the information within a graphical browser and in a table within the browser along with cell bars that are related to the parameters along with colors and bar graphs. Further, the applicants definition states that graphical data within in a HTML page represented as a table is graphical information. Based on the intrinsic information in the disclosure and with the teachings of Berckmans it is believed that the broadest reasonable interpretation has been given to the claims as presented.

Group 2 – claims 2, 9, and 16

Appellant's argument that the factors are chosen based on a selected mode

Appellant argues that the critical factors used to analyze the graphical data are set by the selected mode of the system and that the prior art of Berckmans does not teach the limitations of the claims (See Brief page 17, bottom).

The Examiner disagrees.

The Appellant incorporates arguments from Group 1 and asserts that Berckmans does not teach presenting graphical data. The Examiner incorporates arguments presented above regarding graphical vs. numerical data. Further, as the Examiner argues in the final office action the mode of the device Berckmans teaches a mode-determining feature. The present application specification defines that a set of modes can be set by a rendition mode (See Page 9, Bottom)

that can be associated with the display of the high/low values in the data. The Examiner argues that displaying stock option prices with a bid/ask presentation is a high/low value that someone is willing to pay for the option at the given instance in time. Therefore, Berckmans teaches the limitations of the claim.

Ground of Rejection 2, claims 4-5, 11-12, 18-19, and 23

Appellants argue that combination of the references does not teach all of the features of claim 4

Appellant argues that the combination of Berckmans and W3C does not teach all the limitations of claim 4 because the applicant interprets the web accessibility guidelines as not teaching the missing limitation of analyzing graphical data, ranking the critical factors and then generating a textual description of the graphical data (See Brief pages 21-24).

The Examiner disagrees.

The arguments for performing the graphical rendition are presented above and are hereby incorporated. The Examiner relied on W3C to teach a structure to render graphical elements in an aural format. W3C teaches in guideline 12 that the user is provided with orientation information so that they know where they are in the display and context information that make sense to the user when they are read out loud. The teachings of W3C Accessibility Guidelines are a structure for how to render information to user with disabilities. The assumption for all of the constructs in the guidelines are presented to those that can't see or hear the

information in the display (see page 9). Guideline 12 in conjunction with the other guidelines, specifically guideline 5 teaches that information in tabular data can be rendered in an aural format. Further, W3C teaches that guidelines provide for the structure to render the documents in a specific manner while the explicit examples are shown here <http://www.w3.org/TR/WCAG10-CORE-TECHS/#comprehension> “ Techniques for Web Content Accessibility Guidelines 1.0” as disclosed on page 2 of W3C.

Appellant argues that W3C and Berckmans are unrelated

Appellant argues that Berckmans and W3C are unrelated to each other and one of ordinary skill in the art would not combine the two to reach the inventions in the claim because the Appellant interprets the teachings of W3C as teaching different problems (See Brief page 28).

The Examiner disagrees.

In response to applicant's argument that Berckmans and W3C cannot be combined because they teach different inventions, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). In this case, Berckmans teaches presenting information in a web browser. W3C teaches guidelines for web developers to develop web pages that can be read by persons with disabilities. It would have

been obvious to combines Berckmans for multiple reasons aside from the suggestion in the Brief. Yes, persons with disabilities may have investments and wish to read the information but the guidelines make it clear they were developed to make web content more usable and work with documents that are written on more than one type of hardware or device (See page 6, Top). Therefore, Berckmans and W3C are available as combinable references because they both teach presenting information within a display in a more readable format for the user.

Ground of Rejection 3 (Claim 27)

Appellant argues that it is not common in the art for CGI scripts to generate GIF images

Appellant argues that the Examiner statement regarding the obviousness of selecting the graphical data from the group of GIF, JPEG or PNG formats because the applicant does not believe all of the limitations of claim 8 have been met and state the Examiner improperly cites evidence supporting his position. The examiner incorporates the arguments above as to the limitations of claim 1 that applies to claim 8. The teachings of the prior art provide that it is well known for CGI scripts can be used to present an image in GIF format and the system can determine for the purposes of displaying graphics in a website which image format to choose. The Evidence to support the examiners claim are in references 7050079 (See column 9, top) and 20020035731 (See Para 19) and most importantly, Berckmans teaches that server side solutions are known (See

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column 5, lines 45-50). Moreover, the applicant admits prior art in the present application specification (See Para 0035) that teaches the process of image analysis is known in the art:

If, the graphical information has been provided as an image, a table of values, as discussed in conjunction with FIG. 4, may be generated using image analysis software. Such image analysis software which may be used to create such a table includes commercially available software, for example KBVision.TM. from Amerinex Applied Imaging, Inc., Amherst, Mass. Other image analysis software which may be used in conjunction with the present invention is Khoros Pro.TM. from Khoros Research, Inc., Albuquerque, NM

Therefore, the invention of Berckmans can present the information via CGI scripts that are known server side scripting techniques as suggested in Berckmans, the admitted prior art and the references as cited.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

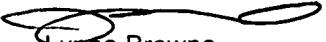
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